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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/803,761

03/18/2004

Dustin L. Winters

87408RLO

6694

7590

12/16/2005

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EXAMINER

ANYA, IGWE U

ART UNIT

PAPER NUMBER

2891

DATE MAILED: 12/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/803,761

Applicant(s)

WINTERS ET AL.

Examiner

Igwe U. Anya

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 3/18/04, 6/13/05
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1 –17 are drawn to Method of Making, classified in class 438, subclass 99.

II. Claim 18 is drawn to Apparatus, classified in class 313, subclass 504.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the process as claimed can be practiced with an adjustable uniformity mask, and the apparatus as claimed can be used for photo patterning.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. During a telephone conversation with Raymond L. Owens on November 17, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1 -17. Affirmation of this election must be made by applicant in replying to this Office action. Claim 18 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1 – 3, 6 – 8 – 14, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsueh et al. (USPAB 20020139666) in view of Brody et al. (US Patent 6943066).

8. Hsueh et al. teach a method for making a thin film device (figs. 3 – 9), comprising:

a) providing a substrate (20) having one or more test regions (50 – 56) and one or more device regions (28');

b) moving the substrate into a least one deposition chamber (10) for deposition of at least one thin layer;

c) depositing the at least one thin layer through a shadow mask selectively onto the at least one device region and at least one test region on the substrate (col. 3 lines 11 – 33);

d) measuring a property of the at least one thin layer in the at least one test region (col. 3 lines 21 – 23);

e) adjusting the deposition process in accordance with the measured property (col. 3 lines 24 – 33);

further including:

i) providing a mask structure (fig. 3) having a plurality of openings which respectively correspond to the at least one device region and arranged to permit the deposition of thin film material on the substrate; and

ii) forming at least one test opening spaced from the plurality of openings for permitting the deposition of organic material onto a test region of the substrate (col. 3 lines 34 – 62);

where the depositing and measuring occur under a vacuum pressure (col. 4 lines 13 – 20);

wherein the properties include target thickness and the adjusting step adjusts the deposition towards such target thickness (col. 3 lines 21 – 62);

wherein the properties include dopant concentration, chemical composition, or optical properties or combinations thereof (col. 3 lines 21 – 23); and

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where the substrates are kept at a vacuum pressure from the depositing of the at least one thin layer until at least the measuring of the at least one thin layer (col. 4 lines 13 – 49).

9. Hsueh et al. lack :

deposition of an organic material for an OLED device;

the step of moving the substrate from the at least one deposition chamber into a measurement chamber where the property is measured; and

wherein the measuring occurs in the at least one deposition chamber;

10. However, Brody et al. teach:

deposition of an organic material for an OLED device (col. 5 lines 11 – 44 & col. 11 lines 4 – 51); and

the step of moving the substrate from the at least one deposition chamber into a measurement chamber where the property is measured (col. 6 lines 1 – 10);

moving the substrate sequentially into a least two deposition chambers for deposition of at least one organic layer in each deposition chamber (col. 11 lines 4 – 65);

where the pressure of the vacuum is less than 0.1 Pa.

where the pressure of the vacuum is less than 0.001 Pa.

11. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Brody et al. into the Hsueh et al. reference to deposit an organic film for an OLED as art recognized equivalents

12. Claims 4, 5, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsueh et al. (USPAB 2002/0139666) in view of Brody et al. (US Patent 6943066), and further in view of Shtein et al. (US Patent 6716656)
13. The Hsueh/Brody et al. reference teaches the features previously outlined, but lacks where the pressure of the vacuum is less than 0.001 Pa.
14. However, Shtein et al. teach a vacuum is pressure less than 0.001 Pa. during deposition an organic material through a shadow mask, for an OLED (col. 4 lines 42 – 55).
15. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teachings of Shtein et al. into the Hsueh/Brody et al. reference for optimization.
16. Prior art made of record and not relied upon, considered pertinent to applicant's disclosure include Shtein et al. (US Patent 6716656), Tang et al. (US Patent 6384529), and Phelan et al. (USPAB 2005/0048862).
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Igwe U. Anya whose telephone number is (571) 272-1887. The examiner can normally be reached on M - F 8:30am - 5:00pm.
18. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William B. Baumeister can be reached on (571) 272-1722. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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19. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Igwe U. Anya
Examiner
Art Unit 2891

IA

December 11, 2005

B. WILLIAM BAUMEISTER
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800

